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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/539,761

06/20/2005

Eberhard Zielke

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EXAMINER

HIGGINS, GERARD T

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

10/20/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/539,761	<b>Applicant(s)</b> ZIELKE, EBERHARD	
	<b>Examiner</b> GERARD T. HIGGINS	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-8 is/are allowed.
- 6) ☒ Claim(s) 1-3 and 9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment received 08/14/2008 has been entered. Currently claims 1-3 and 5-9 are pending.

### ***Claim Rejections - 35 USC § 102/103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3 and 9 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Zielke (WO 99/65128), which is the international application for the US national stage patent 6,627,831, which is used herein as an English translation.

The Examiner notes the definition of the word "mixture" as seen on Merriam-Webster Online: "2: a product of mixing."

The Examiner notes the following product-by-process limitation:

- the requirement in applicant's claims 1 that the part is made from mixing first and second granules, wherein said first granules have an increased electrical conductivity.

In order to be an “insulating material piece” as is claimed the mixture must have been “shaped so as to produce an insulating material piece” (applicant’s specification page 4). This therefore means the claims are not drawn to a mixture of subvolumes, but rather a shaped piece derived from the claimed mixture of subvolumes. This is the very essence of a product-by-process claim. It has been held that “even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” Please see MPEP 2113 and *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Any shaped piece that has different regions of conductivity will be held to anticipate or render obvious applicant’s claims.

Zielke discloses an “insulating component, which is at least partially composed of plastic, for high-voltage systems, in particular for use in gas-insulated systems, whose conductivity is increased in the region of its surface,” which discloses a high voltage power breaker (col. 1, lines 9-12). Zielke further discloses parts **9** and **10** of Figure 1. Part **9** is an “insulating component...which is normally composed of polytetrafluoroethylene” (col. 3, lines 26-28). In order to prevent displacement currents and flashovers, the region of the end face (surface sites) **10** was treated with beta and gamma rays, “which leads to a reduction in the electrical resistance in the region which is subjected to irradiation” (col. 3, line 43 to col. 4, line 5). These limitations anticipate

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or render obvious applicant's claims 1 and 2 because the article of Zielke would be indistinguishable from the article claimed by the process steps in applicant's claim 1.

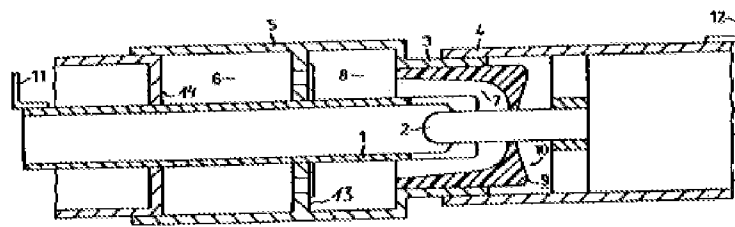


FIG 1

Zielke is silent with respect to the specific ratio of the treated component compared to the untreated component; however, Zielke discloses at col. 4, lines 6-17 that the penetration depth and intensity of the radiation can be varied in order to control the depth of the region of reduced electrical resistance and the extent of molecular change within the region, respectively. The Examiner deems that the insulating part of Zielke inherently comprises treated subvolumes embedded (< 50% in amount compared to the total amount of treated and untreated subvolumes) in the untreated subvolumes, since in order to still be considered an insulating material piece it would necessarily contain more insulating components (2<sup>nd</sup> subvolumes) than conductive components (1<sup>st</sup> subvolumes), and hence the device anticipates applicant's claim 3.

Alternatively, it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the depth and intensity of the beta and gamma radiation to produce an insulating part having the proper amount of electrical resistance for applicant's intended use.

It has also been held that “[o]nce the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product.” Please see MPEP 2113 and *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983). The Examiner has set forth a *prima facie* case that the article of Zielke would be the same or similar to the presently claimed article.

### ***Double Patenting***

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-3 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3 of U.S. Patent No. 6,627,831.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the resultant insulating piece is comprised of two subvolumes, including a first subvolume that has an increased conductivity, which partially lies on the surface of the insulating piece. The Examiner deems that the insulating part of Zielke inherently comprises treated subvolumes embedded (< 50% in amount compared to the total amount of treated and untreated subvolumes) in the untreated subvolumes, since in order to still be considered an insulating material piece it would necessarily contain more insulating components (2<sup>nd</sup> subvolumes) than conductive components (1<sup>st</sup> subvolumes); further, both subvolumes may be made of PTFE.

The pending claims are a broader than the conflicting claims, and therefore encompass the difference present in the copending claims. The difference is that the first subvolume of the copending claims is treated with beta or gamma radiation.

### ***Allowable Subject Matter***

6. Claims 5-8 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: the closest prior art was the rejection set forth in the prior Office action using the Dreyfus (3,486,931) reference. Applicant has amended independent claim 5 to recite that **both** subvolumes are comprised of PTFE. This is not found in the Dreyfus reference as they use treated and untreated tin chloride; further, the Examiner has no teaching, suggestion, or motivation to change the treated and untreated subvolumes in Dreyfus to PTFE.

***Response to Arguments***

7. Applicant's arguments, see Remarks, filed 08/14/2008, with respect to the rejection(s) of claim(s) 7 and 8 under 35 U.S.C. 112, second paragraph, the rejection of claims 1-3 and 9 under 35 U.S.C. 102(b) as being anticipated by Graf (4,418,256), and claims 1, 2, 5, and 6 under 35 U.S.C. 102(b) as being anticipated by Dreyfus (3,486,931) have been fully considered and are persuasive. Therefore, the rejections have been withdrawn.

Applicant's amendment to claims 7 and 8 has overcome the 35 U.S.C. 112, second paragraph rejection.

The incorporation of the fact that both subvolumes must be PTFE has overcome both prior art rejections.

8. Applicant's arguments filed 08/14/2008 have been fully considered but they are not persuasive.

Applicant first attempts to argue that claim 1 does not contain product-by-process limitations, and therefore the Examiner does not teach each and every single limitation of the claim.

The Examiner first notes the definition of the word "mixture" as seen on Merriam-Webster Online: "2: a product of mixing."

In order to be an "insulating material piece" as is claimed the mixture must have been "shaped so as to produce an insulating material piece" (applicant's specification page 4). This therefore means the claims are not drawn to a mixture of subvolumes,



but rather a shaped piece derived from the claimed mixture of subvolumes. This is the very essence of a product-by-process claim. The shaping of the piece occurs in a mold, and then the materials may be sintered to form a solid molding, which then results in the end product of said “insulating material piece.” The mixture of subvolumes is an intermediate step in the production of said insulating material piece; furthermore, given the device of Zielke comprises regions in their formed piece of higher and lower conductivity identical to that claimed, the Examiner deems the article of Zielke to anticipate or render obvious applicant’s claimed invention.

It has been held that “even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” Please see MPEP 2112 and *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985); furthermore, it has also been held that “[o]nce the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product.” Please see MPEP 2113 and *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983).

Applicant then attempts to argue on page 11 of their Remarks that the specification provides sufficient evidence with regard to the non-obviousness of Zielke and the instant application.

It is noted that “the arguments of counsel cannot take the place of evidence in the record”, *In re Schulze*, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965). It is the examiner’s position that the arguments provided by the applicant regarding Zielke (WO 99/65128) must be supported by a declaration or affidavit. As set forth in MPEP 716.02(g), “the reason for requiring evidence in a declaration or affidavit form is to obtain the assurances that any statements or representations made are correct, as provided by 35 U.S.C. 24 and 18 U.S.C. 1001”. The Examiner recognizes the fact that applicant’s specification (pages 1-4) and arguments (pages 10-11) attempt to argue that the insulating material piece of the instant invention would have better mechanical properties; however, this does not constitute proof (data) in the form of affidavit or declaration.

The Examiner has set forth a *prima facie* case that the article of Zielke would be the same or similar to the presently claimed article despite the product-by-process steps; furthermore, applicant has not provided evidence in the form of a declaration establishing an unobvious difference; specifically, evidence in the form of data regarding the differences in the mechanical power of resistance as well as electrical properties.

With regard to the obviousness-type double patenting rejection, applicant attempts to argue that the rejection is invalid because the Examiner has not properly supported his argument for inherency.

First, with regard to the language “reason to believe,” the Examiner was not stating a probability rather he was stating his ***rational***e behind why he deems that the insulating part of Zielke ***inherently*** comprises treated subvolumes embedded (< 50% in amount compared to the total amount of treated and untreated subvolumes) in the untreated subvolumes. The Examiner specifically stated in the prior Office action and above that “in order to still be considered an insulating material piece it would ***necessarily*** contain more insulating components (2<sup>nd</sup> subvolumes) than conductive components (1<sup>st</sup> subvolumes)” (emphasis added). This logical basis provided by the Examiner is the factual support to establish a *prima facie* case of obviousness.

### ***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GERARD T. HIGGINS whose telephone number is (571)270-3467. The examiner can normally be reached on M-F 9:30am-7pm est. (1st Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Gerard T Higgins, Ph.D.  
Examiner  
Art Unit 1794

/Gerard T Higgins, Ph.D./  
Examiner, Art Unit 1794

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Supervisory Patent Examiner, Art Unit 1794

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